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EXAMINER				
NGUYEN, MADELEINE ANH VINH				
ART UNIT		PAPER NUMBER		
2626				

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/627,058	Applicant(s) SUGIURA ET AL.	
	Examiner Madeleine AV Nguyen	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 7, 17, 28 and 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10, 11-16, 18-27, 29-37, 39-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/457,703.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>09/20/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This communication is responsive to amendment filed on June 29, 2004.

Applicant amends claims 1, 11, 22, 32, cancels claims 7, 17, 28, 38, and adds new claim 43-46.

Response to Arguments

1. Applicant remarks that Kumada fails to teach or suggest at least the features that an output device converts original image data into a second color space according to tag data to produce converted image data and then converts this converted image data into a visually-perceptible analog thereof, wherein the output device is a monitor, a projector or a printer.

In Fig.1 of the Background of the Invention, Kumada teaches “in the color conversion process shown in Fig.1, a scanner color space (i.e., scanner RGB) or a monitor color space (i.e., monitor RGB) is converted into a printer color space (i.e., printer CMYK). In this case, since the source device is a scanner or a monitor, the profile of the scanner or the monitor is handled as the source profile. On the other hand, since the destination device is a printer, the profile of the printer is handled as the destination profile.” (col. 1, lines 24-32). Kumada further teaches “a device profile performs a color conversion process” (col. 1, lines 16-17) and “The profile is divided into a header portion and a data storage portion. In the header portion, information which is used to manage the profile is stored... in the data storage portion, profile description information for discriminating the profile is stored. Thus, a source profile comprises data information of the source device or a destination profile comprises data information of the

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destination device for color conversion. Kumada teaches that the user selects one scanner profile from the displayed list at the network 10 (S 107), and the network 10 demands the network server 3 to download the scanner profile (as a source profile) selected to the terminal side (S 108), in S 109, it demands the network server 3 to download the monitor profile (as a destination profile) to the terminal side (col. 5, lines 51-60). As stated in the claim, "receiving from said provider, tag data representing parameters of said first color space". Thus, the fact that the network 10 receives, from the server 3 the scanner profile as a source profile having information of the source device is equivalent of the step of "receiving from said provider, tag data representing parameters of said first color space" since the provider is the server 3 and the tag data representing parameters of the first color space of the source profile are included in the source profile as defined by Kumada. Kumada further teaches that the converted image data is displayed on the monitor as a visually-perceptible analog data as claimed (S 114, S 115, Fig.5; col. 6, lines 7-15).

2. Applicant remarks that Kumada provides absolutely no teaching that an output device, such as monitor, converts the image data according to the tag data and then converts the image data into a visually-perceptible analog thereof, e.g., displays the converted image data.

Fig. 21 is a view for explaining data which is stored in a data storage portion of the printer profile and used for the color matching. Kumada teaches "in case of converting a PCS (profile connection space: CIE XYZ or CIE Lab) which is a color space not depending on a device into a printer color space (CMYK in this case), the data used for the conversion sequentially performed in processes 80 to 83 is stored in the printer profile." (col. 11, lines 49-

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57). Thus, in case the output device is a monitor, the image data from the first color space are converted into XYZ or Lab color space as a second color space and then are converted to RGB color space as a visually-perceptible analog in order to be displayed on the monitor. Thus, Kumada teaches an output device, such as monitor, converts the image data according to the data stored in the output profile and then converts the image data into a visually-perceptible analog as claimed.

3. Therefore, applicant's arguments filed on June 29, 2004 have been fully considered but they are not persuasive.

The rejection of claims 1-6, 8-16, 18-27, 29-37, 39-42 is maintained.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-6, 11-13, 15-16, 18, 22-24, 26-27, 29-34, 36-37, 39-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada (US Patent No. 6,337,922).

Concerning claim 22, Kumada discloses a system (Fig.23, 33) having an output device (10) that converts image data of a second color space (for example, independent color space CIE XYZ or CIE Lab) to a visually-perceptible analog of the image data (col. 11, lines 49-57), to display original image data that was generated relative to a first color space (for example, RGB

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color space from scanner or monitor), the apparatus comprises a provider (40) of image data; a communication channel (30); an output device (10) that converts image data of a second color space to a visually perceptible analog thereof; the output device is operable to receive the original image data that was generated according to a first color space (60), from the provider over the communication channel and the output device is operable to receive, along with the image data, a profile of the provider over the communication panel and the output device is operable to convert the image data relative to the second color space according to the profile to produce converted image data and the output device is operable to convert the converted image data into a visually-perceptible analog thereof (Figs. 4-5, 21, 25, 36, 37; Abstract; col. 5, lines 4-31; col. 6, lines 16-67; col. 11, line 27 – col. 12, line 67; col. 16, lines 23-60). Kumada further teaches that the output device is a monitor or a printer (col. 1, lines 24-33; col. 5, lines 10-11; col. 6, lines 12-27).

Kumada does not specifically teach that the output device receives, along with the image data, tag data representing parameters of the first color space from the provider. Instead, Kumada teaches that the output device receives image file added with a profile. From Fig.2, a profile is divided into a header portion and a data storage portion: in the header portion, information which is used to manage the profile is stored, in the data storage portion, profile description information for discriminating the profile is stored (col. 1, lines 36-46). In addition, from the prior art, a device profile performs a color conversion process to perform color matching between input and output images using a profile corresponding to a source device before conversion and a profile corresponding to a destination device after conversion (col. 1, lines 15-21). Thus, the profile can include parameters of the color space of the image data. It

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would have been obvious to one skilled in the art at the time the invention was made to consider the tag data including in the device profile since the device profile also has data representing parameters of the image data including color space of the source image data.

Kumada fail to specifically teach that the output device is a projector, a liquid crystal display device, a plasma display device. However, a projector, a liquid crystal display device, a plasma display device are also display devices which can display the image data. It would have been obvious to one skilled in the art at the time the invention was made to include a projector, a liquid crystal display device, or a plasma display device as an output device in Kumada since they are also output devices that can display image data while Kumada does not limit any display device since each display device has its profile stored in the network server 40 and can be downloaded to any network terminal 1 or 10.

Concerning claims 23-24, 26-31, 33-34, 36-41, Kumada further teaches the provider is a computing device (40) and the communication channel (30) is a direct connection between the computer device (40) and the output device (10); the output device (10) is a component of a personal computing device connected to said network, the provider receives the original image data from a data source (60) which is a scanner or signal generator; the output device (10) is a monitor, a projector or a printer (Figs.23, 33); the output device is a first output device and the converted image data is first converted image data, the computing system having at least a second output device (20 or 50) that converts image data of a third color space to a visually-perceptible analog of the image data (RGB or YMC to printed data) and wherein the provider (60) is operable to transmit the original image data or the profile file with the original image data (col. 2, lines 7-10) to the second output device (50), the second output device is operable to

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convert the original image data relative to the third color space (any independent color space) according to the profile data to produce second converted image data (data in YMC color space or data in RGB color space), and the second output device is operable to convert the second converted image data into a visually-perceptible analog (printed data such as bit-map data or displayed data) substantially simultaneously with the first output device (1 or 10) converting the first converted image data into a visually-perceptible analog (displayed data) thereof; wherein the first output device (10) is a default monitor for the computing system and the second output device (20 or 50) is an auxiliary monitor for displayed processed image data (Figs.25-32, 36-41; col. 1, lines 15-46; col. 2, lines 36-67; col. 5, lines 4-35; col. 6, line 51 – col. 8, line 22; col. col. 11, line 27 – col. 12, line 61; col. 16, lines 18-65).

Concerning claim 32, Kumada discloses a computing system as discussed in claim 22 above. Kumada further teaches that the output device is operable to presume, if no tag data is received over the communication channel, the first color space is a default color space and the output device is operable to convert the original image data relative to the second color space (Figs. 4-8; col. 5, lines 21-46; col. 6, lines 22-36).

Concerning claim 42, the default color space is standard RGB (col. 1, lines 24-27).

Claims 1-3, 5-7, 9-13, 15-18 are method claims of apparatus claims 22-24, 26-34, 36-41. Claims 1-7, 9-18 are rejected for the same rationales set forth for claims 22-24, 26-34, 36-41.

Concerning claims 43-46, Kumada discloses an image display apparatus (1, Fig.3 or 10, Fig.23, 33) comprising an input terminal for receiving from a provider (20, 40 or 60), over a communication channel (30), original image data that was generated according to a first color space (for example, RGB color space) and for receiving source profile including information of

the first color space; a color conversion module (in the terminal 1 or 10) for converting the original image data from the first color space into a second color space (for example, independent color space such as XYZ, Lab) on the basis of the tag data, wherein the image display apparatus (monitor in 1 or 10) visually displays the converted image data (in RGB color space) on a monitor.

Kumada does not specifically teach that the output device receives, along with the image data, tag data representing parameters of the first color space from the provider. However, Kumada teaches that the output device can receive an original image file containing image data and a profile added to the image file (col. 2, lines 7-13). The same discussion is repeated as in claim 22 above.

In addition, Kumada does not directly teach the conversion from a first color space into a second color space on the basis of the information in the source profile. However, in Fig.21, Kumada teaches the destination profile converts the image data from independent color space such as CIE XYZ or CIE Lab to CMY for printing (col. 11, lines 49-57). That indirectly means that the source profile converts the original image data from the first color space (for example RGB) to a second color space (independent color space XYZ or Lab), since the source profile and the destination profile are for converting the original image data from a source color space to a destination color space (col. 1, lines 15-33).

3. Claims 8-10, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada as applied to claims 1, 11 above, and further in view of Hibi (US Patent No. 5,359,437).

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Concerning claims 8-10, 19-21, Kumada further teaches that the output device retrieving data representing parameters of the default color space wherein the parameter include a code identifying a color space, primary coordinates color characteristics or parameters for image processing (col. 1, lines 36-46; col. 11, lines 27-67; col. 12, lines 20-39; col. 16, lines 37-55).

Kumada fails to teach that the parameters are combination of the primary coordinates and the tone characteristics or the tone characteristics include a gamma value for the first color space and table values for tone conversion, or the color reproduction characteristics include one of RGB signal levels for specific colors or a combination of hue, chroma and value coordinates. Hibi discloses an apparatus for color conversion having conversion circuit 22 for converting signals of reflectance read by CCD sensor into signals of lightness scale L^*bgr , and an $L^*a^*b^*$ conversion circuit 23 for converting signals of lightness scale L^*bgr into standard system value ($L^*a^*b^*$) signals where axis L^* of the system values indicate intensity and two dimensional surface of axis a^* and axis b^* orthogonal to the axis L^* indicates saturation and hue, a hue and chroma conversion circuit 24 generates signals H (hue) and C (chroma) from system value $L^*a^*b^*$ signals. Hibi further teaches a tone reproduction which controls conversion circuit 29 carries out tone conversion in accordance with output characteristics of the image output device, and then carries out color balance control and contrast control (col. 7, lines 11-42). It would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Hibi to the parameters of the color space in the profile taught in Kumada since Kumada teaches that the profile is for color conversion between input and output images corresponding to a source device before conversion and a profile corresponding to a destination

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device after conversion (col. 1, lines 11-21) wherein the parameters including tone characteristics, primary coordinates are required for color conversion.

4. Claims 4, 14, 25, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada as applied to claims 1, 11, 22, 32 above, and further in view of Agarwal et al (US Patent No. 6,509,910).

Concerning claims 4, 14, 25, 35, Kumada fails to teach that the network connection is wireless. Agarwal et al teaches a communication system for sending data between multiple networks wherein the system can receive image along with related data directly from conventional communication network such as optical, electrical or wireless data communication network (col. 3, line 62 – col. 4, line 4). It would have been obvious to one skilled in the art at the time that invention was made to combine the teaching of wireless communication networking in Agarwal to the system in Kumada since Kumada does not limit the type of network connection and both of Kumada and Agarwal teach the transmission and reception of image data along with a profile through a communication network.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

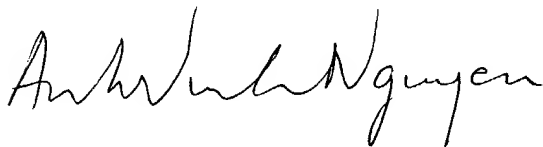
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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

December 16, 2004